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The total for Africa, like that for Asia, is probably too large, while those for Europe, Asia and Australia are too small. By continents there result in 1914 the following:

North America...	136+	(with islands)
South America...	46+	
Europe	467+	
Asia	857—	
Africa	155—	
Australasia	8+	
The World.....	1,669	millions

A GEOGRAPHICAL STUDY OF NOVA SCOTIA*

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Two hundred years ago Nova Scotia was nearly if not quite as promising a colony as Massachusetts. Its position was more strategic. Its climate was as good and its resources were superior. Massachusetts has no equal area of farm land as fertile as the Annapolis Valley. It has a longer coast line, fringed with harbors. Louisbourg, the French stronghold on Cape Breton Island, was scarcely second in importance to Quebec. Halifax was founded and fortified by England in 1749 as a counterpoise to the French Louisbourg, and the taking of this fortress by the New England troops was one of the great events of colonial history. Port Royal on the Bay of Fundy was the first permanent settlement in North America north of Florida. The importance attached to Port Royal is shown by the fact that it was five times taken by the English, unsuccessfully attacked by them three times, and by the French and Indians twice. It was sacked and abandoned twice, once by pirates and once by United States Revolutionary troops. The ruins of its fortifications cover 28 acres. After the Revolutionary War, more than 25,000 people—the United Empire Loyalists—left the states and selected Nova Scotia and New Brunswick for their home. Even in 1800 most people saw as prosperous a future for New Scotland as for New England. Writing in 1787, Hollingsworth says in his book on Nova Scotia:

“This country [Nova Scotia], as has been already observed, may be justly esteemed the first in the American world, with respect to

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that situation, whether in peace or war, which a great maritime power, possessed also of settlements in the West Indies, would wish to retain and improve.”

Yet to-day the total population of Nova Scotia is less than that of Boston, and its average density is equal to that of Oklahoma. There are ten cities in Massachusetts any one of which manufactures more than Nova Scotia, and the semi-annual *profits* of the United States Steel Corporation in time of active business would pay for the total yearly manufactures of Nova Scotia.

Nova Scotia lies nearer Europe than does New England; it was settled by the best of European stocks, English, Scotch and Germans, and some Irish, with a large admixture of New Englanders. It has ample supplies of coal and limestone at the water's edge, while only a day's run to the north are the iron mines of Wabana, Newfoundland, also at the water's edge. Moreover, the province lies at the entrance to the River and Gulf of St. Lawrence, the gateway into Canada.

If a rigorous climate, thin soil, Atlantic waterfront, many harbors and North European stock account for the phenomenal development of New England, why have these same factors not led to similar results in Nova Scotia? And still more, since the latter has coal and the former has none?

GENERAL GEOGRAPHICAL CONDITIONS IN NOVA SCOTIA

The province has 21,000 square miles, more than half of which is forest well culled and much injured by fires. Three-eighths of the land is in farms, but half of this is wooded. Not over 20 per cent. of the total area is suitable for farming. The peninsula is penepained to a relief of about 400 feet in the south, rising to nearly 1,000 feet in Cape Breton; it is underlain in part by ancient slates and quartzites, intruded by massive batholiths of granite and is also underlain by Paleozoic rocks. The entire surface was thoroughly scraped by glaciers and the southeastern shore is deeply fiorded. The coal measures are in Cape Breton Island and along the shore of Northumberland Strait. Parallel to the Bay of Fundy runs the high trap ridge known as North Mountain, of the same origin and age as the trap ridges of New Jersey and the Palisades of the Hudson. Opposite this and eight miles away extends the granite wall of South Mountain, and between lies the paradise of Nova Scotia, the Cornwallis-Annapolis Valley, eroded in the soft red shales of the Triassic. This is the principal valley of the province, the home of prosperous and well-housed farmers and apple growers. The granite and quartzite knobs are bare, the soil

on the slopes is thin, and most of the crops are grown near the roads on the so-called interval, or valley, land, or on the rich tide-marsh reclaimed from the sea by the dikes which the Acadians built or taught others to build. These reclaimed lands are made of sea mud washed into the estuaries by the powerful tides. They are the most valuable meadow lands of the province, producing as high as three tons of hay to the acre year after year. The general aspect of much of the country, with its wide stretches of cut-over and burned-over land, is not prepossessing. The farm houses are small and crops are light. The average farm of the province is valued at about \$2,000 and it produces from \$300 to \$500. The Cornwallis-Annapolis Valley, eighty miles long and eight wide, is almost a continuous orchard. Protected on the north and south by mountain walls of considerable height and possessed of rich red soil, it is ideally suited to apple growing, and annually exports \$2,000,000 worth of fruit. A single tree is officially reported to have borne 35 barrels in one year.

Next after the valley, the area of Paleozoic rocks in the north, bordering on Northumberland Strait, is agriculturally best developed. The part of the province that faces the Atlantic is the poorest and half of this is a wilderness traversed by no railroad. Even Halifax County is so little developed that it is one of the chief moose-hunting grounds of the province. Despite the continuous fringe of harbors, there is but one important port, Halifax. The port of Lunenburg in the German settlement is the chief fishing center.

The Fisheries. The nearness of the fishing banks, the many-harbored coast and the scanty soil had the same influence in Nova Scotia as in New England. In both regions these influences bred a race of boat-builders, fishermen and sailors. In the days of wooden ships, the coast of Nova Scotia, like the coast of Maine, was busy with the building of sailing vessels, and, like those of Maine, many of the shipyards of Nova Scotia are now idle. But the influence of the fisheries has left its impress upon almost every phase of the life of the province, and fishing is now and will continue to be one of the principal industries. In registered tonnage per capita, Nova Scotia vies with Norway.

The Mines. One of the few places in the world where coal is mined at the sea shore, in fact two miles out under the sea, is in Nova Scotia. The Sydney coal field in Cape Breton occupies 200 square miles and is bounded on three sides by salt water. In Pictou County are seams 24 to 30 feet thick. Nova Scotia pro-

duces two-thirds of the coal mined in the Dominion. The coal from the Sydney mines in Cape Breton is taken to Quebec and Montreal on specially constructed steamers at a small cost per ton. Off the eastern coast of Newfoundland is the strange little island of iron ore whose beds dip under the sea, so that the major part of the ore properties are submarine. How much coal and iron have been put beyond men's reach by the sinking of the land at the mouth of the St. Lawrence no one can tell. At the Sydneys and at New Glasgow are the largest smelting and steel plants of the Dominion. Here on the shore of the Gulf of St. Lawrence the iron ore and coal meet under many favorable conditions of location. It looks as if iron and steel production and the subsidiary industries which live on the steel mills have a future here. Already a little Pittsburg has grown up. If it does not grow into a big Pittsburg it will be the fault of men, not of geography.

All told the extractive industries yield \$25,000,000 a year, the value of two dreadnoughts. The value of all manufacturing is \$40,000,000 to \$50,000,000 a year, with iron and steel the leading item.

Railroads. The railroads of Nova Scotia are probably as numerous and as good as conditions will warrant, but they do not remind you of the Pennsylvania. The government-owned Intercolonial Line crosses the province and terminates at Halifax. It runs two good trains each way daily, one even on Sunday. This Sunday train is a special concession to an unwelcome demand from outside and is not popular in the province. Sunday trains or boats in the Maritime Provinces are not countenanced. However, changes of great moment are under way. The Canadian Pacific has obtained the Dominion Atlantic Line which connects Digby on the Bay of Fundy with Halifax on the Atlantic. This may mean that Halifax is to become the principal Atlantic port of the great Canadian Pacific system. It is understood also that this will be the Atlantic terminal of the Grand Trunk Pacific when it is completed. Vast terminal improvements involving \$35,000,000 are now in progress at Halifax, and the people of the old town are slowly getting into a new frame of mind. They see a future for their city.

So much for the material side of the neglected province of Nova Scotia—the province that has been passed by. In its material aspects there is nothing that rises above the ordinary, but there is a side to its history which looms above the commonplace and to this I now ask your attention.

The People. It is not necessary that, when wealth increases,

men decay. It is not a demonstrated law that bare hills, or poor land or a rigorous climate are the necessary environment wherein to breed *men*, but it is a law that a land of great material prosperity, teeming with industry and wealth, attracts its young Alexanders and Shakespeares into the world of business, and they become Harrimans, Morgans, and Rockefellers. Not so with a land placed and endowed like Nova Scotia. Into this province there was a migration of some of the same stock that made New England, and into it there came thousands of Scotch, mostly highlanders. From such scions as these, men are bound to grow, and if the material activities of their country can not absorb their energies, then those energies are turned into other channels. Nova Scotia is, as its name warrants, a Scotchman's province. In Halifax I met the chief engineer in charge of the great harbor and terminal improvements; his name is MacGregor. I met the President of Dalhousie, the leading collegiate institution; his name is Mackenzie. He gave me the opportunity of meeting his right-hand men on the board of trustees; their names are Campbell, McInnes and Mitchell. The provincial premier is George Murray and the Lieutenant Governor is J. Drummond MacGregor.

Nova Scotia has long been the unchallenged leader in Canada in the production of statesmen and scholars. It has furnished three of the premiers of the Dominion, the present incumbent being a Nova Scotian. It has furnished a major part of the college presidents for the rest of Canada. Pictou County is the center of the Scotch population, and this single county has supplied a list of college professors and college presidents that would do credit to a province. From this one county, nine men are now serving or recently have served as college presidents, and as prominent college professors, 18 others, not to mention educators of lesser standing. I met a man whose position and income is that of a railroad ticket agent in a city of 8,000 people. He seemed to regard it as not worthy of comment that all of his four sons have gone through college or are going through. Undoubtedly the richest product of this little province is *men*, men whom it has educated and sent out to the rest of Canada and to the United States.

In striking contrast to Pictou County with its Scotch population, devoted to higher education and producing in a generation or two 27 college presidents and professors, is Lunenburg County on the Atlantic coast, settled in 1752, mainly by German farmers from the Palatinate and Hanover. Of its 30,000 population, in 1891, 9,000 could neither read nor write. They are an in-

dustrious, thrifty and fairly prosperous people, but they are not making their sons into premiers or college presidents. The influence of the sea and of the fishing banks has made over a race of peasant farmers into the preeminent fishing population of Nova Scotia. And a people whose interests—created by their environment—seek occupation in fishing do not stress the intellectual side of life. It is a question which I ask and cannot answer: Suppose the same Scotch colonists who settled in Pictou County had, instead, settled in Lunenburg County, would they in that environment have produced the long line of illustrious men that they have produced in their present environment? It is the old question of racial stock *versus* environment in the making of men.

Nova Scotians are emphatically a religious people. Only 500 people out of the 500,000 are without church affiliation. The seating capacity of the churches practically equals the population. I was told of a recently enacted law in Halifax that limits the number of saloons to one for each thousand of the population. In Nova Scotia, Sunday is Sunday and business stops, trains stop and people go to church.

ISOLATION AS A CONSEQUENCE OF GEOGRAPHICAL CONDITIONS

And now in conclusion: Why has Nova Scotia won the name of "the province that has been passed by?" Why is there such a contrast between the development and present life of New Scotland and of New England, so similarly placed and so similarly peopled? If the hard conditions of farming, the abundant waterpower, the momentum of an early start and the intelligence of the people of New England satisfy our quest for the reason of New England's industrial development, why do we not get a similar result in a province just across a political boundary? To me two reasons are clear. One is a matter of political geography and the other a matter of physical geography. The throbbing, buoyant, optimistic, aggressive life of the Republic is partly the fruit of our patriotism and of our faith in our country and partly the result of our exceptional opportunities. Our democratic institutions and our wealth of opportunity have drawn to us a steady stream of new blood always regarded as a menace when it was coming and as a blessing when a new current had set in. No such stream of optimism has until recently fed the life of Canada in general and not even yet, the Maritime Provinces. These provinces have never shared adequately in the economic development of the Dominion as a whole, and this appears to be, in large part at least, a result of their physical geography, mainly location. When the land at

the mouth of the St. Lawrence sank and admitted the sea a thousand miles up the valley, it fixed the commercial meeting place of land and ocean at the foot of the Lachine Rapids, at the island of Montreal. Between the coast of Nova Scotia and the attractive lands of Ontario and Quebec lies a long stretch of unattractive country. Nova Scotia is isolated, damagingly isolated from the real centers of Canadian activity, and politically cut off from its natural neighbor, New England. The great transcontinental railway lines did not find it necessary or expedient to terminate on the shore of Nova Scotia. Until the present, the ports of Montreal and Quebec, in summer, St. John and Portland, in winter, have been used, and Nova Scotia has been passed by. It has had no hinterland, and in this lies one of its greatest contrasts to Massachusetts. Despite its nearness to Europe, most of the Atlantic liners steam to the north up the St. Lawrence, or southward to ports which were more accessible from the interior, and these have received and dispatched the transatlantic trade of Canada. I have encountered no instance of a region seemingly so favorably situated for ocean commerce and which has proved up to the present to be so unfavorably placed.

Nova Scotia, the outpost of Canada on the Atlantic, the colony which was thought to have the best commercial situation in the American world, illustrates, when taken in connection with the St. Lawrence, the fact that it is not usually the point where the land juts farthest into the sea, but the point where the sea pierces farthest into the land, that offers the most advantageous place for the meeting of land and water routes. Canada has developed slowly, and Nova Scotia has been compelled to wait and seems to have been content to wait until the time when the growing industries and ocean trade of the Dominion should make the splendid harbor of Halifax a necessary winter terminal of its great continental railroads. This is now coming to pass. A new spirit of optimism is taking root in the province. The vigorous industrial life of Amherst, New Glasgow, Truro and the Sydneys is an object lesson in the possibilities which Scotia's coal and Newfoundland's iron, meeting under exceptionally favorable geographical conditions, can do for manufacturing and consequently for the whole economic life of the province. There is no boom on in New Scotland. They are not an effervescent people. Halifax is not Seattle. Yet they believe, and the visitor to their province comes to believe, that Nova Scotia is rounding a corner, and that geographical conditions, which, under a past regime, have retarded her growth, are now likely gradually to reverse their influence.